

Infant Crying and Sleeping After 3-4 Months: an in-depth guide

Caring for an infant can be rewarding, but is sometimes challenging too. This guide focuses on managing infant crying and sleeping from about 3-4 months of age. A guide to coping in the first few months is also available, you can access it [here](http://www.cry-sis.org.uk/help-with-young-babies): www.cry-sis.org.uk/help-with-young-babies

Except where health or safety is involved, this guide does not try to prescribe the best way to look after an infant. Instead, we aim to provide information which helps parents to choose care methods which suit their baby and themselves. The suggestions here are all based on research evidence about methods which have helped parents to manage. Some of them may work for you.

The superscript numbers (e.g.¹) inserted in the text below identify the original research studies which provided the evidence. They are listed on the Cry-sis website: www.cry-sis.org.uk/infant-references

What can you expect?

- Infant crying usually peaks in the first few months and halves by about 3 months of age¹. The total amount of fretting and crying at 3-4 months averages around 1 hour per 24 hours¹. Some infants cry more than this, some less.
- Another change is that most infants start to sleep for longer periods in the night than day-time by 3-4 months of age². Parents sometimes refer to this as 'sleeping through the night' but, as indicated below, that phrase is misleading:
- Few infants sleep continuously for 8 hours at 3 months. Rather, two steps in sleep development take place. The first is that infants increase the lengths of sleeps in the night: in research, this is often measured as sleeping continuously for 5 hours or more³⁻⁴. The second development is that they begin to settle themselves back to sleep when they wake up in the night – so that two sleep periods get joined together⁵.
- Parents are often unaware of this infant night waking because they are themselves asleep. Night-time infra-red video recording is needed to show it happen⁵. Infants wake and may fret for a moment or two before resettling, or wake and re-settle back to sleep without vocalizing⁵. This joining together of sleep periods separated by brief arousals is a normal feature of mature sleeping⁶.
- The resulting development of long sleep periods in the night is known as 'consolidated sleeping'. You may also see it called 'self-regulated' sleeping because infants control it themselves⁷.
- In a recent New Zealand study, parents kept sleep diaries to record how long infants slept at each age. By 5 months of age, 72% of infants were reported to sleep continuously for 5 hour periods, and 68% for 8 hour periods, during 5 or more nights of the week⁷.
- It may be apparent, now, why the phrase 'sleeping through the night' is unhelpful. If the night is defined as 7pm to 7am, for instance, it is correct to say that most infants do not sleep through the night, since an evening feed between 7 and 10pm is common. Yet they can still have slept 8 hours, for instance from 10pm to 6am. Unless a report makes clear whether it refers to sleep periods lasting 5 hours, or 8 hours, and when the night is said to start and end, it can only cause misunderstanding.
- As a broad 'rule of thumb' it may be useful to keep in mind that most infants develop prolonged sleep periods most nights of the week by 6 months of age. About 20-30% have not done so at 3 years of age⁸.

- Although the figures above describe most infants, there are also substantial individual differences, both in the amounts infants sleep and cry and in their rate of sleep development⁹. These individualities are partly controlled by an infant's genes and partly by environmental factors, such as an infant's feeding method. Feeding is discussed below.
- The question of whether and when parents can help infants to develop their sleeping, and whether or not they should do so, is among the most controversial in infant sleep research.

Infant safety and health

- Based on evidence about safety and health, an 'infant-cued' approach to infant feeding and baby-care is generally recommended in the first 3-4 months. An infant-cued approach highlights the need for rapid responses to infant cries. The sources of information underlying this recommendation can be found [here](http://www.cry-sis.org.uk/resources): www.cry-sis.org.uk/resources
- Sleeping in a cot or crib in the same room as you –both in the day and night - will help to keep your infant safe. Studies in several countries have found that sleeping in the same room as parents makes Sudden Infant Death Syndrome (SIDS) less likely. Sleeping in the same room until an infant is at least 6 months old is recommended¹⁰.
- Putting babies down to sleep on their backs, rather than tummies or sides, also reduces the risk of SIDS. The peak age for SIDS is 2-4 months¹¹ and 85% of cases happen in the first 6 months¹². Placing infants on their backs to sleep until they are a year old, or can turn themselves over, is recommended^{11; 12}.
- Breast feeding reduces the rate of SIDS and is good for infant health. Current medical guidelines recommend that it should be continued for at least 6 months where possible¹³.
- Cry-sis has been contacted by parents worried by claims that any crying can damage their baby's developing brain. That claim can be traced back to a book for parents – it was not a scientific report. To her credit the author makes clear that she does not expect parents to respond immediately to all infant crying: 'it is not crying itself that can affect a child's developing brain: it is prolonged, uncontrolled distress'¹⁴.
- More scientifically, video recordings have shown that UK parents sharing a room with infants typically take 2 or 3 minutes to detect and respond to their baby's crying at night¹⁵. Few parents deliberately leave babies to cry for long periods, but an instant response is not always practical.

Links between infant-cued parenting, infant feeding method, and infant crying and sleep

- As noted above, 'Infant-cued' parenting prioritises the need for rapid responses, including feeding, when infants cry. This is also known as 'attachment parenting' because it is believed to develop trusting and affectionate relationships between infant and parent.
- Many, but not all, studies have found that infants fed breast milk are likely to continue to sleep for shorter periods, and to wake in the night until an older age, than infants fed formula¹⁶.
- It has been assumed that this is because breast milk is digested more quickly, leading infants to wake up hungry more often.

- However, breast feeding and infant cued parenting often occur together. Where infants are breast fed immediately on waking, they are likely to continue to sleep for short periods and wake up in the night until they are older in age, compared to other infants¹⁷. It is not clear whether this is due to breastfeeding, to infant-cued care, or to genetic differences between infants.
- Because of the benefits of infant-cued care, some parents may choose to continue it beyond the first few months and to accept that infants cared for in this way are more likely than other infants to continue night waking. For these parents, continuing close and frequent contact may outweigh other considerations. Additional reading is included at the end of this guide.

Links between limit-setting parenting, infant feeding, and infant crying and sleep

‘Limit-setting’ or ‘behavioural’ parenting, asks parents to introduce routines and sometimes delay responding to help infants to develop self-regulated sleep and waking^{4; 18}.

After early infancy, there is evidence that limit-setting parenting increases the length of infant night-time sleep periods, and reduces night waking, compared to infant-cued parenting^{4; 18; 19}. Unfortunately, this evidence is not conclusive²⁰. Here, we will set out the evidence and the provisos which need to be considered. The next section will discuss other factors which parents may wish to take into account when choosing between infant-cued and limit-setting parenting.

- The main elements of limit-setting parenting are^{18; 21}
 - Becoming familiar with an infant’s ‘tired signs’ in the evening and developing bed-time routines around them. The tired signs include rubbing eyes or faces, yawning and becoming grizzly. For more information, see: <https://raisingchildren.net.au/babies/sleep/understanding-sleep/tired-signs>
 - Use of bath-times and wind-down routines to lead up to an infant’s tired time. One American study found that a 3-step routine, involving a bath, massage and quiet activities, was enough by itself to enable infants to settle more quickly, wake less often, and to sleep for longer periods, compared to infants without the routine²¹. We do not know how long this lasted, unfortunately, because the infants were not followed up.
 - Trying as much as possible to avoid feeding or cuddling an infant to sleep. Instead, the aim is to settle an infant in his or her regular sleeping place when tired but awake.
 - Making social interactions enjoyable in the day-time and reducing light and social interaction at night. Our eyes and brains respond to light by waking and to darkness by sleeping, even when eyes are closed²². Keeping light levels low at night and bright in the day-time is important. Dim night lights to allow safe care are fine.
 - When an infant wakes and vocalises in the night, delaying responding for a few moments to allow him/her a chance to resettle. This does not mean ignoring intense crying or leaving an infant to become highly distressed.

- Avoiding feeding the moment an infant wakes up. Instead, the aim is to delay feeding for a few moments, for instance by nappy changing, so that waking is not directly connected to feeding. This, too, does not mean ignoring intense crying or leaving an infant to become highly distressed.
 - The English parents involved in one of the studies which developed these limit-setting strategies were asked how they found them. They reported that they were able to use them and found them clear, helpful, and not overly prescriptive¹⁸.
- Although there is evidence that introducing limit-setting parenting as infants get older helps them to develop longer night-time sleep periods, this evidence comes with provisos:
- Limit-setting parenting increased the length of infant sleep periods in five controlled trials^{4; 18; 23-25}, but two did not find any difference^{21; 26}. That may be due to the practical difficulties involved in studies of this kind, but the reason is not yet known.
 - Where found, the improvements were modest. One trial found that limit-setting parenting increased the number of infants who slept continuously for five hours by 10%¹⁸. Some infants benefit more than others. Where infants who fed particularly frequently in early infancy received limit-setting care, 20% slept for 5 hours or more²⁷.
 - Each of the approaches includes several different parenting behaviours. Which ones are most important and why is not certain.
 - It is not clear how long these improvements last. There is evidence that infants who wake often in the night at 5 months are likely to continue to do so²⁸. However, few studies of limit-setting care have followed up infants for long enough to know whether the improvements are long lasting.
 - Limit-setting parenting is designed to prevent infant sleep problems from developing. It should not be confused with ‘controlled crying’ methods, which ask parents to leave infants to cry to treat infant crying problems. These are discussed separately below.
 - That said, there is video evidence that limit-setting parenting does increase infant crying a little – by 1.5 minutes per hour, on average, compared to infant-cued parenting¹⁵. Parents may wish to consider whether this is justified by the benefits of limit-setting care in increasing the likelihood that infants will sleep for long periods at night.

Choosing between infant-cued and limit-setting parenting

- It may be helpful to think of infant-cued and limit-setting parenting as opposite ends of a continuum, so that many parents fall somewhere in-between. Studies show that some parents have firm commitments

to infant-cued or limit setting parenting before their baby is born; others experiment by trying out parts of each approach until they develop a workable plan¹⁷.

- As practiced in the UK, neither infant-cued nor limit-setting parenting has compelling advantages in terms of infant safety or health. There is no medical reason to choose one or other. Rather, parents' choice of which form of infant care to adopt, at which age, needs to reflect their values, priorities and circumstances, as well as the evidence.
- Because of the advantages of infant-cued care, some parents may prefer to accept its potential disadvantage – that infant night waking is more likely to continue. For these parents, continuing close and frequent contact may outweigh other considerations.
- In some circumstances, parents find infant night waking, and the associated disruption to their own sleep, exhausting and incapacitating. For instance, where both parents work office hours, it may be more challenging to cope with a loss of parental sleep, compared to where parents can catch up on sleep in the daytime. The decision may involve weighing up lifestyle factors, such as income and the availability of supports.
- Although parents are the main beneficiaries where infants sleep for long periods at night, infants can benefit too:
 - Parental wellbeing is in infants' best interests.
 - Human sleep consolidation is thought to take place early on to align infant with parental sleep-waking and allow the social learning which supports infant development. Some parents may wish to support their child's early sleep-waking development to allow this.
 - Little is known about genetic effects on infant sleep. However, the Gemini twin study found the notion that infants can regulate their own feed intake to be a myth: some infants were genetically predisposed to be eager feeders, others reluctant or faddy, whether they were fed breast or formula milk²⁹. Evidence-informed parenting was able to support the development of healthy infant eating. Similarly, it seems likely that some infants will need support to develop consolidated sleeping.
 - Prevention may be less distressing for infant and parents than cure. Where infant waking in the night continues long-term, some parents are likely to turn to programmes for treating infant sleep problems. As we will see in the next section, many such programmes do involve leaving infants to cry.

Using sleep training programmes to treat infant sleep problems after they have arisen

- Where infants over 6 months old take a long time to settle to sleep, wake and cry out frequently, and have short sleep periods at night, this is often called an 'infant sleep problem'. This phrase is unfortunate, since most of the infants involved are healthy and there is no evidence they get inadequate sleep overall. The 'problem' belongs mainly to their parents. The infants are simply showing night-time behaviours which most infants grow out of by 6 months of age.

- For brevity, we will follow convention and use the term ‘infant sleep problems’ where one or more of these night-time behaviours in infants over 6 months old concern their parents. Typically, parents report around 20-30% of older infants to have sleep problems⁸.
- Because these infants are in good health, some parents prefer to accept their night waking rather than to try to change it. The reasons and evidence for and against trying to change an infant’s sleep-waking were discussed in the section above (Choosing between infant-cued and limit-setting parenting).
- A variety of terms are used to describe attempts to treat infant sleep problems. For convenience, we will group them together and call them ‘infant sleep training programmes.’
- Parents who contemplate using sleep training programmes with infants over 6 months of age are in a special situation, often desperate for a solution to their own lack of sleep. There could be serious adverse consequences if they do not find a way to cope.
- Parents in this situation also need to cope with the conflicting, and often strongly held, opinions of family members, friends, and experts. It is crucial to distinguish opinion from evidence.
- Where they are used carefully, there is strong and extensive evidence that the training programmes described below are effective in treating sleep problems in healthy infants who are six months or older³⁰⁻³². There are, however, provisos: even a successful programme does not guarantee that sleep problems will not recur in future. The treatment may be best thought of as preliminary, to allow long-term solutions to be devised.
- The chief concerns raised by critics of sleep treatment programmes are that they are stressful for infants and may damage their affectionate and trusting attachment relationships with parents.
- Several studies have now looked into those concerns and have found no evidence to support them³³⁻³⁵. It is true that further and better studies are needed, but the research so far provides no evidence that sleep training programmes harm infants’ bodies, minds, or attachments with parents. A link to further information is included at the end of this guide.
- In stress research, a distinction is often drawn between short occasional (‘acute’) stresses and persistent or ‘toxic’ stress³⁶. Acute stresses can be beneficial by stimulating learning and development – it is toxic stress that needs to be avoided. On the evidence collected so far, the sleep training programmes listed below are acutely, but not toxically, stressful for healthy infants over 6 months of age.

‘Controlled Crying’ (also known as ‘Graduated Extinction’ and ‘Checking’) programmes³¹

- The first step is to discuss how to use this method safely and carefully with your partner and health visitor. It is likely to increase an infant’s crying in the first few nights before it reduces, and settling and sleeping improves. If you are unable to leave your infant to cry, this method is unlikely to work. Indeed, half hearted use may make things worse. It may be worth telling neighbours about your plans.
- If you choose to go ahead, the next step is for parents to agree on a realistic bedtime and length of sleeping for the infant, taking his/her ‘tired signs’ into account (section above ‘Links between limit-setting parenting, infant feeding, and infant crying and sleep’ describes these). The evening feed is then followed

by pleasurable activities, such as bathing, to establish calm and a bed-time routine. A parent then settles an infant in his/her cot at the agreed bed-time.

- The parent then leaves the room and ignores crying and other protests which occur for an agreed interval of time. This interval can be about 5 minutes, but is often set following a discussion between parents of what the infant and parents can manage. The interval is then gradually increased to 10 and 15 minutes, in the same or following nights.
- After the interval, a parent can return to ensure safety and comfort the infant, intervening as little as possible. If needs be, the infant can be picked up, calmed and replaced in the cot. Parents should not feed or take the infant into bed with them.

'Gradual Retreat' programmes³⁷

- This gentler method is preferred by many parents. It may take longer to work than controlled crying.
- After some bed-time routines, an infant is put in his/her cot at the planned bed-time. In this case, though, a parent stays in the same room, sitting next to the infant and touching his/her hand or back. Talking and patting an infant may be helpful. The aim, so far as possible, is to try to avoid picking an infant up and holding him/her to sleep.
- After 3 or 4 nights, the next step is to sit beside the cot on a chair without making contact whilst an infant goes to sleep. Again, this can be done for 3-4 nights or until s/he is settling happily.
- Once this is tolerated, move your chair to increase the distance from the cot. Over the next few nights move your chair a little further, until you are at the door.
- If a step is not tolerated go back to the previous night's position. Try again once the infant is settled.
- Once at the door you can start to move out of sight. You can increase the time you leave him/her before returning to the room until they can fall asleep alone.
- For some parents, finding ways of tolerating and coping with their child's night waking may prove less disruptive for the family as a whole than trying to impose methods to stop infant sleep problems. Many children will eventually stop waking in the night on their own.

'Positive Behaviour' methods³¹

- This term is used for methods which avoid leaving infants to cry. The word 'positive' refers to methods which take steps to support and reward infants who settle and go to sleep at night³¹.

- These methods are similar to the limit-setting parenting strategies used with infants in the first 6 months, described in page 4 above. The main difference is that these are used in response to sleeping problems at an older age.
- Lighting in the place where the baby sleeps is reduced at night and increased in the morning, to encourage an infant to link sleeping with night-times and waking with day-times. Blue or white lights can delay sleep onset. We don't know if that is true for infants, but they are best avoided if possible.
- Unfortunately, there is less evidence that these methods are effective in dealing with infant sleep problems once they have arisen. They are likely to take longer and may not be as effective as the sleep training methods described in page 7 above.
- A group of infants has been identified who have multiple problems: prolonged crying, night waking, feeding and other problems which continue after 5 months of age. These are rare: only about 5% of infants have these multiple and continuing problems³⁸. Our understanding of these infants is poor, but there is evidence that some of them are likely to benefit from additional help. Parents who believe their infant fits into this group should contact a health visitor or GP for advice.
- It is worth remembering that being woken up by a child in the night can be stressful, but is usually a sign that the child is in good health. Isn't it better to have a child who wakes in the night than one who is quiet and ill? It can help, too, to bear in mind that most children will eventually stop waking and crying out in the night as they get older.

Additional Sources of information

A guide on coping with crying and sleeping in early infancy is available [here](http://www.cry-sis.org.uk/help-with-young-babies): www.cry-sis.org.uk/help-with-young-babies

For more information about safe sleeping, try: www.nice.org.uk/guidance/cg37; www.isisonline.org.uk; <https://www.lullabytrust.org.uk/safer-sleep-advice/>

Videos on becoming familiar with infant sleep, waking and settling can be found at: <https://aimh.org.uk/getting-to-know-your-baby/>

For more information about sleep training see: http://www.theedenacademy.co.uk/assets/uploads/Sleep_training_techniques_Bartshealth.pdf

For more information on allowing infants to cry, visit featured article here: www.cry-sis.org.uk/references-and-helpline

References for the original studies cited are listed [here](http://www.cry-sis.org.uk/infant-references): www.cry-sis.org.uk/infant-references

You can contact the

CRY-SIS HELPLINE

08451 228 669

Lines Open 7 Days a Week 9am – 10pm

2p per minute plus the standard network charge.

On dialling the Cry-sis Helpline you will be connected to a volunteer who once experienced problems like yours. The helpline is open seven days a week between 9am and 10pm, but please remember that the volunteer is a parent, just like you, with family commitments.